

INVESTMENT OVERSIGHT COMMITTEE  
ACTUARIAL STATUS AND RECENT INVESTMENT PERFORMANCE  
THURSDAY, JUNE 9, 2011

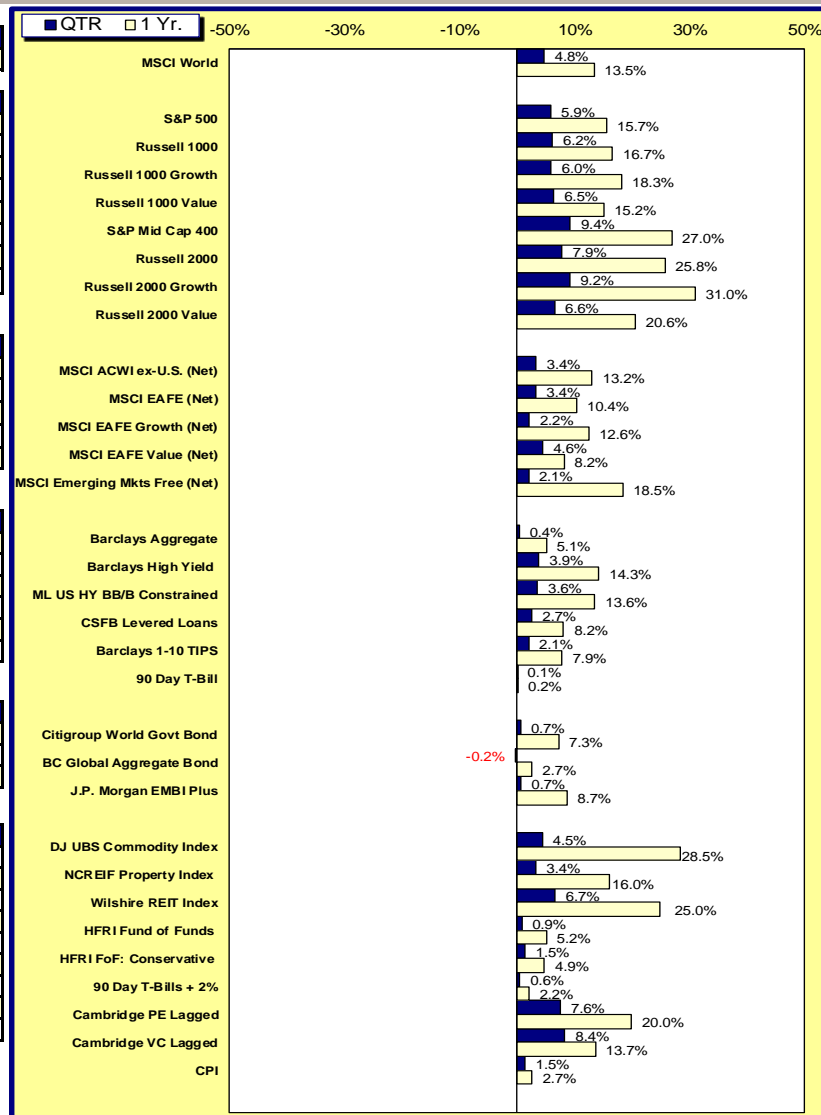
**Rick Scroggins, Deputy Director**



# INVESTMENT PERFORMANCE

# Market Environment Overview

		QTR	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI World	World	4.8%	13.5%	-0.3%	2.1%	4.2%
<b>Domestic Equity Benchmarks</b>						
S&P 500	Large Core	5.9%	15.7%	2.4%	2.6%	3.3%
Russell 1000	Large Core	6.2%	16.7%	3.0%	2.9%	3.8%
Russell 1000 Growth	Large Growth	6.0%	18.3%	5.2%	4.3%	3.0%
Russell 1000 Value	Large Value	6.5%	15.2%	0.6%	1.4%	4.5%
S&P Mid Cap 400	Mid Core	9.4%	27.0%	10.0%	6.1%	9.4%
Russell 2000	Small Core	7.9%	25.8%	8.6%	3.4%	7.9%
Russell 2000 Growth	Small Growth	9.2%	31.0%	10.2%	4.3%	6.4%
Russell 2000 Value	Small Value	6.6%	20.6%	6.8%	2.2%	9.0%
<b>International Equity Benchmarks</b>						
MSCI ACWI ex-U.S. (Net)	International	3.4%	13.2%	-0.9%	3.6%	7.4%
MSCI EAFE (Net)	Int'l Developed	3.4%	10.4%	-3.0%	1.3%	5.4%
MSCI EAFE Growth (Net)	Int'l Developed	2.2%	12.6%	-2.5%	2.1%	4.8%
MSCI EAFE Value (Net)	Int'l Developed	4.6%	8.2%	-3.6%	0.4%	5.9%
MSCI Emerging Mkts Free (Net)	Int'l Emerging	2.1%	18.5%	4.3%	10.7%	16.8%
<b>Domestic Fixed Income Benchmarks</b>						
Barclays Aggregate	Core Bonds	0.4%	5.1%	5.3%	6.0%	5.6%
Barclays High Yield	High Yield	3.9%	14.3%	12.9%	9.1%	8.6%
ML US HY BB/B Constrained	High Yield	3.6%	13.6%	10.7%	7.9%	7.8%
CSFB Levered Loans	Bank Loans	2.7%	8.2%	7.4%	4.6%	4.9%
Barclays 1-10 TIPS	Inflation-Linked	2.1%	7.9%	3.9%	6.3%	6.7%
90 Day T-Bill	Cash	0.1%	0.2%	0.5%	2.2%	2.2%
<b>Global Fixed Income Benchmarks</b>						
Citigroup World Govt Bond	Global Bonds	0.7%	7.3%	3.2%	7.3%	7.4%
BC Global Aggregate Bond	Global Bonds	-0.2%	2.7%	4.4%	4.9%	4.9%
J.P. Morgan EMBI Plus	Em. Mkt. Bonds	0.7%	8.7%	8.4%	8.2%	10.4%
<b>Alternative Benchmarks</b>						
DJ UBS Commodity Index	Commodities	4.5%	28.5%	-5.2%	2.6%	7.1%
NCREIF Property Index	Real Estate	3.4%	16.0%	-3.6%	3.5%	7.5%
Wilshire REIT Index	REIT	6.7%	25.0%	1.7%	0.8%	11.3%
HFRI Fund of Funds	Hedge Funds	0.9%	5.2%	-0.8%	1.6%	4.2%
HFRI FoF: Conservative	Hedge Funds	1.5%	4.9%	-1.2%	1.2%	3.6%
90 Day T-Bills + 2%	Hedge Funds	0.6%	2.2%	2.5%	4.3%	4.3%
Cambridge PE Lagged	Private Equity	7.6%	20.0%	1.5%	10.0%	10.0%
Cambridge VC Lagged	Venture Capital	8.4%	13.7%	-0.7%	6.1%	-3.8%
CPI	Inflation	1.5%	2.7%	1.5%	2.3%	2.4%



Note: Cambridge Private Equity and Cambridge Venture Capital Indexes are lagged by one quarter. Performance shown as of December 31, 2010.

As of March 31, 2010

## Summary of Investment Results

- **Over the last 12 months, the Fund experienced a net investment gain of \$1.2 billion, which includes a net investment gain of \$347.1 million during the first calendar quarter. Total assets increased from \$8.6 billion 12 months ago to \$9.5 billion on March 31, 2011, with \$252.5 million in net distributions during the year.**
- **Over the past five years, the Fund returned 4.8% per annum, outperforming its policy index by 1.1% and ranking in the 24<sup>th</sup> percentile of the Independent Consultant Cooperative's Public Funds > \$1 Billion Universe.**
  - The Fund's volatility was 12.1%, which ranks in the 66<sup>th</sup> percentile of its peers over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the 32<sup>nd</sup> percentile of its peers. Therefore, the Fund has produced more return per unit of risk taken over this period than the median fund in the universe.
- **For the two-year period ending March 31, 2011, the Fund returned 26.4%, outperforming its policy index by 4.8% and ranking in the 12<sup>th</sup> percentile of its peers.**
  - Over the past two years, in what has been a highly volatile market environment, the Fund has been able to reduce its volatility on both an absolute and relative basis, while continuing to produce superior risk-adjusted returns.
  - The Fund's volatility was 9.3% for the two years ending 3/31/2011, which is in line with the median fund over this period. The Sharpe Ratio over the past two years is 2.8, and ranks in the 9<sup>th</sup> percentile.
- **For the one-year period ending March 31, 2011, the Fund returned 13.8%, outperforming its policy index by 2.2% and ranking in the 53<sup>rd</sup> percentile of its peers.**
  - The Fund's volatility was 9.1% for the year ending 3/31/2011, which is in the 27<sup>th</sup> percentile over this period. The Sharpe Ratio over the past year is 1.5, and ranks in the 27<sup>th</sup> percentile.
- **For the quarter, the Fund posted a 3.8% return, outperforming its policy index by 0.8%, and ranking in the 67<sup>th</sup> percentile of its peers.**
  - With its lower allocation to traditional public markets equities, the Fund lagged its peers in a period when equities markets rallied.

*All asset classes were within policy ranges on March, 31, 2011.*

## Fund Allocation

	Market Value	Percent of Total Assets	Interim Policy Target <sup>1</sup>	Difference	Long Term Policy Target <sup>2</sup>	Difference	Range
<b>TOTAL FUND</b>	<b>\$9,466,216,563</b>	<b>100.0%</b>					
<b>TOTAL EQUITY</b>	<b>\$4,343,268,136</b>	<b>45.9%</b>	<b>45.0%</b>	<b>0.9%</b>	<b>40.0%</b>	<b>5.9%</b>	
<b>U.S. EQUITY</b>	<b>\$2,730,587,040</b>	<b>28.8%</b>	<b>25.0%</b>	<b>3.8%</b>	<b>25.0%</b>	<b>3.8%</b>	<b>10-40%</b>
<i>U.S. Large Cap Equity</i>	<i>\$2,385,921,417</i>	<i>25.2%</i>	<i>23.0%</i>	<i>2.2%</i>	<i>23.0%</i>	<i>2.2%</i>	
<i>U.S. Small Cap Equity</i>	<i>\$344,665,623</i>	<i>3.6%</i>	<i>2.0%</i>	<i>1.6%</i>	<i>2.0%</i>	<i>1.6%</i>	
<b>NON-U.S. EQUITY</b>	<b>\$1,612,681,096</b>	<b>17.0%</b>	<b>20.0%</b>	<b>(3.0%)</b>	<b>15.0%</b>	<b>2.0%</b>	<b>10-35%</b>
<i>Non-U.S. Developed Markets</i>	<i>\$573,417,846</i>	<i>6.1%</i>	<i>10.0%</i>	<i>(3.9%)</i>	<i>5.0%</i>	<i>1.1%</i>	
<i>Non-U.S. Emerging Markets</i>	<i>\$1,039,263,250</i>	<i>11.0%</i>	<i>10.0%</i>	<i>1.0%</i>	<i>10.0%</i>	<i>1.0%</i>	
<b>FIXED INCOME</b>	<b>\$2,880,083,318</b>	<b>30.4%</b>	<b>33.0%</b>	<b>(2.6%)</b>	<b>27.0%</b>	<b>3.4%</b>	<b>5-40%</b>
<i>Core Bonds</i>	<i>\$2,246,002,698</i>	<i>23.7%</i>	<i>28.0%</i>	<i>(4.3%)</i>	<i>5.0%</i>	<i>18.7%</i>	
<i>Credit Strategies</i>	<i>\$634,080,620</i>	<i>6.7%</i>	<i>5.0%</i>	<i>1.7%</i>	<i>20.0%</i>	<i>(13.3%)</i>	
<i>Emerging Markets Debt</i>	<i>\$0</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>2.0%</i>	<i>(2.0%)</i>	
<b>ABSOLUTE RETURN</b>	<b>\$663,384,162</b>	<b>7.0%</b>	<b>10.0%</b>	<b>(3.0%)</b>	<b>8.0%</b>	<b>(1.0%)</b>	<b>2-20%</b>
<b>GLOBAL ASSET ALLOCATION</b>	<b>\$501,452,845</b>	<b>5.3%</b>	<b>5.0%</b>	<b>0.3%</b>	<b>5.0%</b>	<b>0.3%</b>	<b>0-10%</b>
<b>REAL ESTATE</b>	<b>\$476,384,537</b>	<b>5.0%</b>	<b>5.0%</b>	<b>0.0%</b>	<b>5.0%</b>	<b>0.0%</b>	<b>0-10%</b>
<i>REITS</i>	<i>\$370,710,239</i>	<i>3.9%</i>	<i>3.0%</i>	<b>0.9%</b>	<i>0.0%</i>	<b>3.9%</b>	
<i>Private Real Estate</i>	<i>\$105,674,298</i>	<i>1.1%</i>	<i>2.0%</i>	<i>(0.9%)</i>	<i>5.0%</i>	<i>(3.9%)</i>	
<b>PRIVATE EQUITY</b>	<b>\$365,306,975</b>	<b>3.9%</b>	<b>2.0%</b>	<b>1.9%</b>	<b>7.0%</b>	<b>(3.1%)</b>	<b>2-20%</b>
<b>REAL ASSETS</b>	<b>\$99,153,594</b>	<b>1.0%</b>	<b>0.0%</b>	<b>1.0%</b>	<b>7.0%</b>	<b>(6.0%)</b>	<b>0-10%</b>
<b>CASH</b>	<b>\$137,182,996</b>	<b>1.4%</b>	<b>0.0%</b>	<b>1.4%</b>	<b>1.0%</b>	<b>0.4%</b>	<b>0-10%</b>

As of March 31, 2010

## Total Fund Performance

	Ending Market Value	Last 3 Months	Rank	Fiscal YTD	Rank	One Year	Rank	Annualized Returns									
								Two Years	Rank	Three Years	Rank	Five Years	Rank	Ten Years	Rank	Fifteen Years	Rank
New Mexico Educational Retirement Board	\$9,466,216,563	3.8%	67	18.5%	78	13.8%	53	26.4%	12	4.6%	16	4.8%	24	5.8%	45	7.1%	--
New Mexico Educational Retirement Board (Net)		3.4%		17.7%		12.9%		25.7%		4.2%		4.4%		5.4%		6.8%	
Allocation Index		3.5%	77	17.3%	89	12.6%	91	23.0%	40	5.0%	10	5.2%	15	6.2%	26	n/a	--
Policy Index		3.0%	92	16.8%	94	11.6%	98	21.6%	56	2.5%	76	3.7%	79	5.5%	70	6.7%	--
60% S&P 500/40% BC Aggregate		3.7%		18.4%		11.8%		21.3%		4.1%		4.37%		4.6%		6.9%	
70% S&P 500/30% BC Aggregate		4.3%		21.4%		12.8%		23.9%		3.7%		3.98%		4.3%		6.9%	
ICC Public Funds > \$1 Billion Median		4.2%		19.5%		14.0%		22.0%		3.1%		4.3%		5.8%		--	
ICC Public Funds Median		4.0%		19.6%		13.6%		22.2%		4.1%		4.5%		5.8%		--	

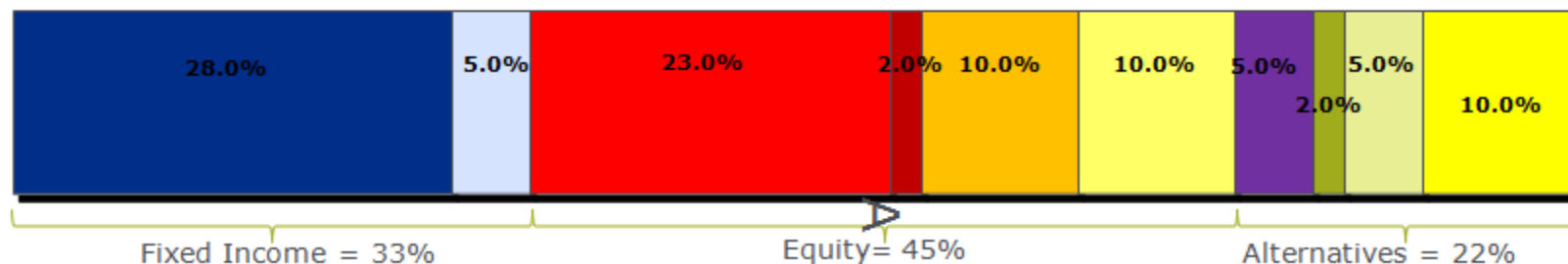
## Total Fund Asset Growth Summary (\$000)

	One Quarter		Year to Date		One Year		September 30, 2010
<b>TOTAL FUND</b>							
Beginning Market Value	\$	9,203,491	\$	8,178,764	\$	8,553,662	\$ 7,694,652
Net External Growth	\$	(84,379)	\$	(213,112)	\$	(252,515)	\$ (1,015,859)
Return on Investment	\$	347,105	\$	1,500,564	\$	1,165,070	\$ 2,787,423
Income Received	\$	44,875	\$	152,190	\$	228,432	\$ 1,142,317
Gain/Loss	\$	302,230	\$	1,348,374	\$	936,638	\$ 1,645,106
Ending Market Value	\$	9,466,217	\$	9,466,217	\$	9,466,217	\$ 9,466,217

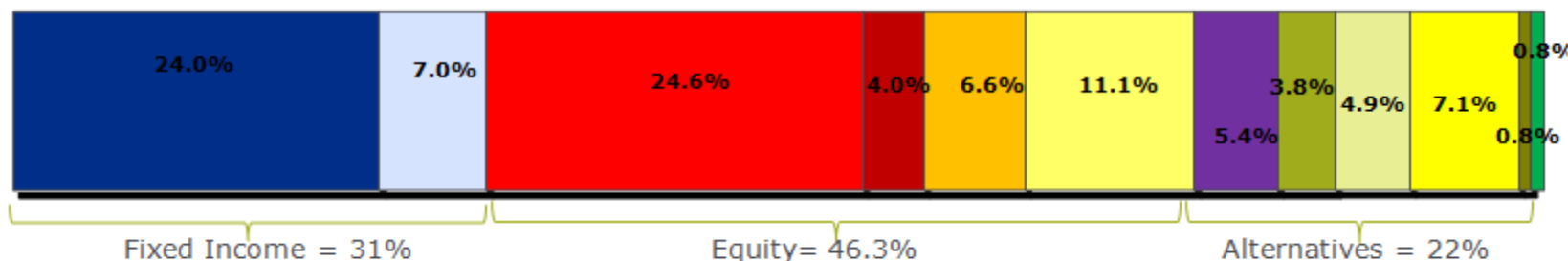
As of March 31, 2010

# Asset Allocation Beginning of Quarter

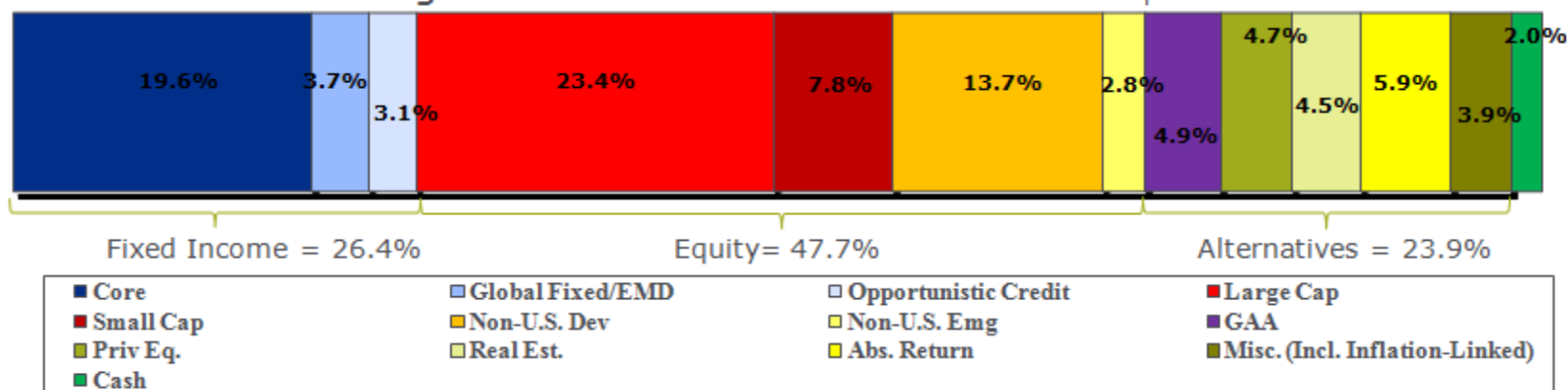
## Interim Policy Target



## Actual Asset Allocation



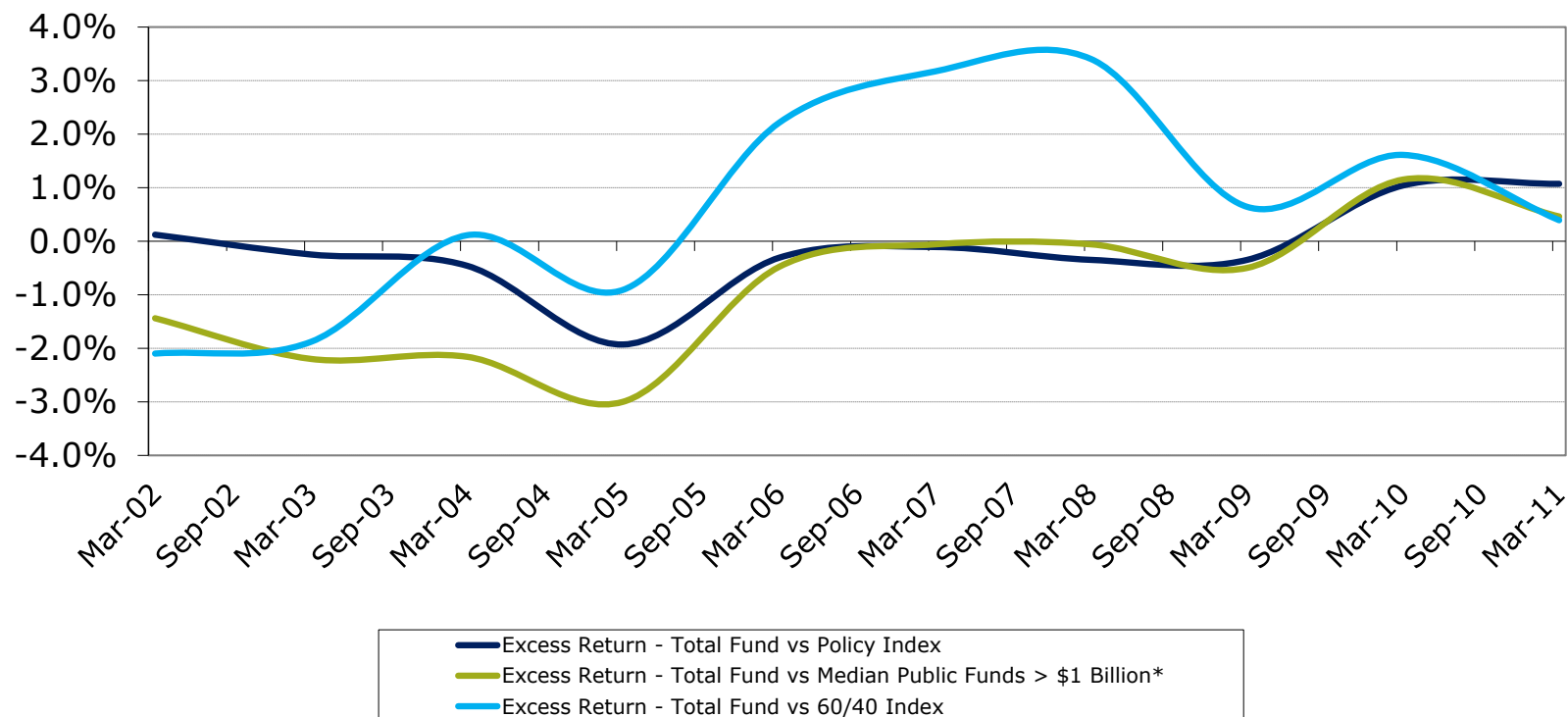
## Average Asset Allocation of Public Funds > \$1 Billion



Note: Market values shown above include cash held in separately managed portfolios.  
Totals may not add to 100% due to rounding.

As of March 31, 2010

## Rolling 5 Year Excess Returns



Note: Excess returns vs. Public Funds > \$1 Billion from 2005 – present. Excess return vs. Public Funds prior to 2004.

Returns are gross of fees.

As of March 31, 2010



## ACTUARIAL STATUS

## Membership

	2009	2010
<b>Active Members:</b>	63,819	63,295
<b>Retired Members:</b>	32,496	33,747
<b>Inactive Members:</b>	30,574	31,836
<b>Total:</b>	126,889	128,878

## Payroll

	2009	2010
<b>Active Member Payroll (billions) :</b>	\$2,585.7	\$2,575.8
<b>Annuitant Payroll (millions):</b>	\$659.3	\$626.6
<b>Total Contributions (millions):</b>	\$538.8	\$566.8
<b>Refunds (millions):</b>	\$29.7	\$28.8

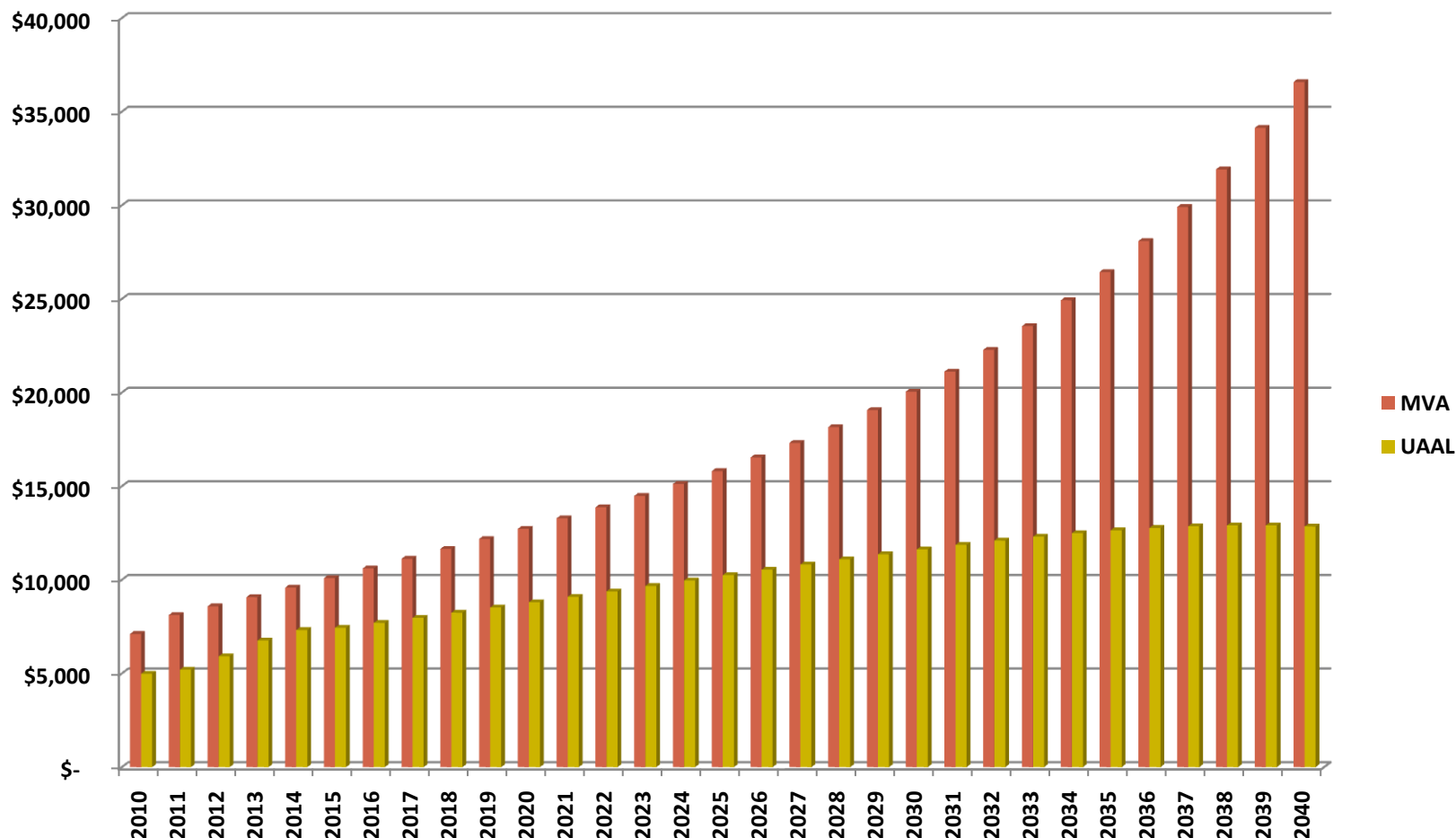
## Contributions

	2009	2010
<b>Member Contributions:</b>	\$215.1	\$253.6
<b>Employer Contributions:</b>	\$319.0	\$309.0
<b>ARP Contributions:</b>	\$4.7	\$4.2
<b>Total:</b>	\$538.8	\$566.8

## Demographics

	Active Members	Service Retirees
<b>Average Age:</b>	46.5	59.0 (at retirement)
<b>Average Service:</b>	9.7	28.0
<b>Average Salary/Pension:</b>	\$40,695	\$20,320

# Actuarial Market Value of Assets (MVA) vs. Unfunded Actuarial Accrued Liability (UAAL)



At the April 2011 board meeting the board voted to decrease the investment return assumption to 7.75%, down from 8.00%. As a result the 2010 Unfunded Actuarial Accrued Liability (UAAL) has increased by \$473 million, bringing the total UAAL for 2010 to \$4,990 million. The funded ratio also decreased from 65.7% to 63.6%.

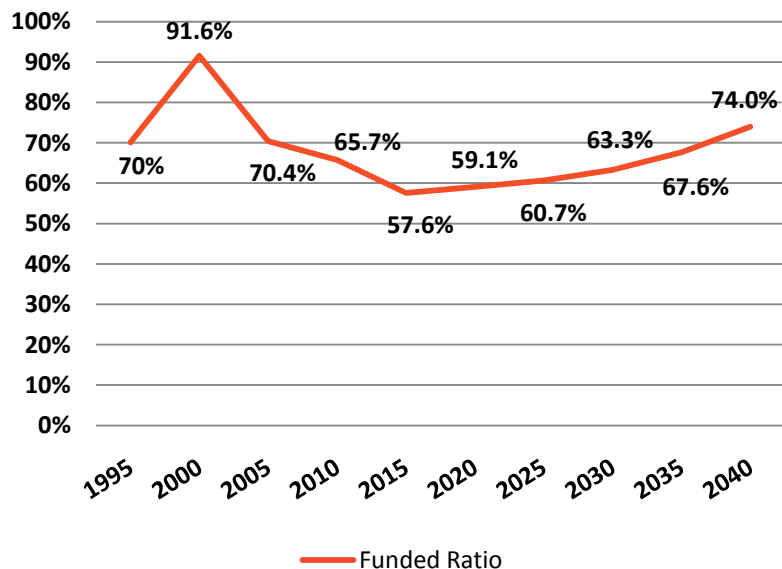
\* Dollar amounts are in millions

## Governmental Accounting Standards Board

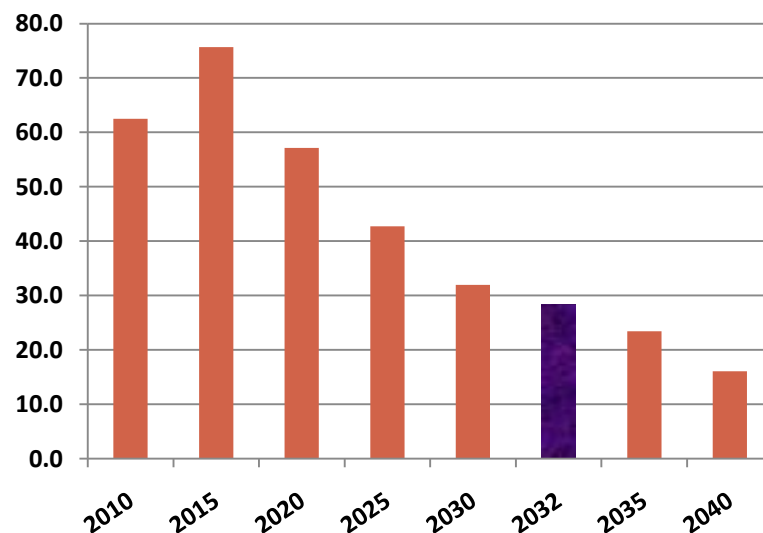
### **GASB 25 – This statement establishes financial reporting standards for defined benefit pension plans.**

- The funding period, also known as the amortization period should not exceed the maximum 30-year period. ERB's current funding period is 62.5 years. ERB's funding period will be in compliance with GASB standards in 2032 when it reaches 28.4 years.
- The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) stands at 63.5% in 2010. Five years ago the ratio stood at 75.4% and ten years ago the ratio was 85.9%. The ratio reached an all time high in 2001 at 91.9% however began to decrease in as the negative investment experience in the 2001 – 2003 fiscal years was phased into the actuarial value of assets.

**Funded Ratio: 1995 - 2040**



**Funding Period: 2010 - 2040**



## Actuarial Experience Study as of June 30, 2010

### Summary of Recommendations and Estimated Impact

- ✓ Decrease investment return assumption to 7.75%
  - *UAAL increases by \$473 million and funded ratio decreases from 65.7% to 63.6%*
- ✓ Revisions to post-retirement mortality
- ✓ Changes to retirement rates at ages 65 to 69 and with 25 or more years of service
- ✓ Decrease salary scale for members with at least 10 years of service from 5.00% to 4.75%
- ✓ Change to individual entry age normal cost funding method
  - *Normal cost rate increases from 12.48% to 14.09%*
- ✓ Change the population growth assumption to 0.75% per year (no impact on valuation results)

*The ERB board voted to accept these recommendations at the April 2011 board meeting.*

## CEM BENCHMARKING – DEFINED BENEFIT ADMINISTRATION BENCHMARKING ANALYSIS: FISCAL YEAR 2010

## Peer Group

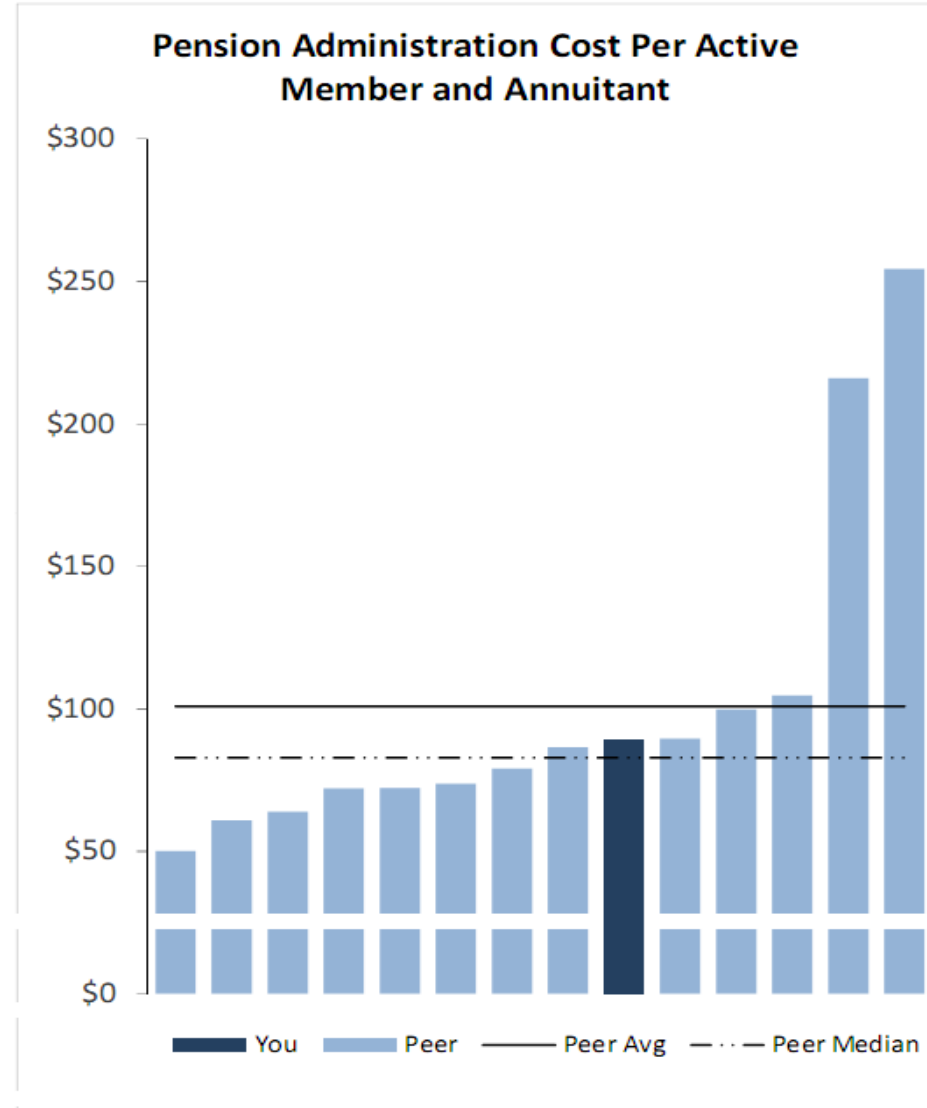
The custom peer group for New Mexico ERB consists of the following 14 peers:

Custom Peer Group for New Mexico ERB			
Peers (sorted by size)	Membership (in 000's)		
	Active	Annuityants	Total
TRS Louisiana	95	65	160
Texas County and Distric	123	36	159
LACERA	94	55	150
Utah RS	105	44	149
Nevada PERS	103	44	147
Indiana State TRF	73	46	119
Idaho PERS	67	34	101
<b>New Mexico ERB</b>	63	34	97
Maine PERS	57	33	90
MOSERS	53	34	87
Oklahoma PERS	44	28	72
Delaware PERS	43	24	67
Michigan MERS	37	25	62
South Dakota RS	39	21	60
Peer Median	65	34	99
Peer Average	71	37	108

Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded because they are less costly to administer than either active members or annuitants.

## Pension Administration Cost

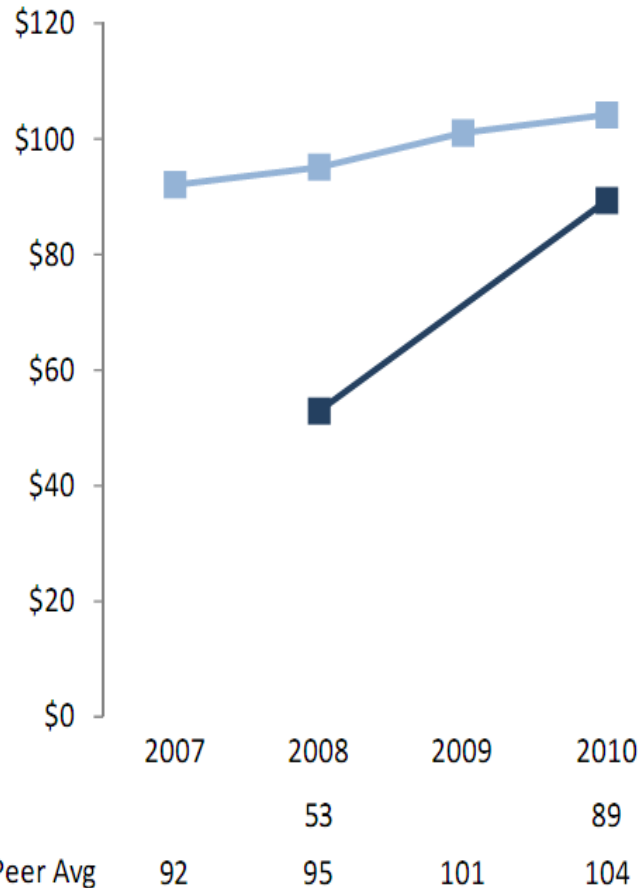
- ERB's total pension administration cost is **\$89** per active member and annuitant. This is \$12 below the peer average of \$101 (and \$7 above the peer median of \$83).
- ERB's total pension administration cost was \$8.7 million.





## Cost Trends

Trend in Total Pension Administration Costs



- ERB's total pension administration cost per active and annuitant member increased by 30% per annum between 2008 and 2010. During this same period, the average cost of your peers increased by 10% per annum.
- The primary reason for this is increased litigation and legal expenses. IT strategy, database management and application costs also increased.
- Despite rising expenses the total cost per active and annuitant member is still below the peer average.

## Cost Model

### Reasons for differences in total costs

- 1 Economies of scale
- 2 Transactions per member (workloads)
- 3 Transactions per FTE (productivity)
- 4 Paying more per FTE for: salaries and benefits, building and utilities, HR and IT desktop
- 5 Higher third-party costs and other miscellaneous costs in front-office activities  
(Front office activities are Member Transactions, Member Communication and Collections and Data Maintenance.)
- 6 Higher back-office activity costs  
(Back office activities are Governance and Financial Control, Major Projects and Support Services.)

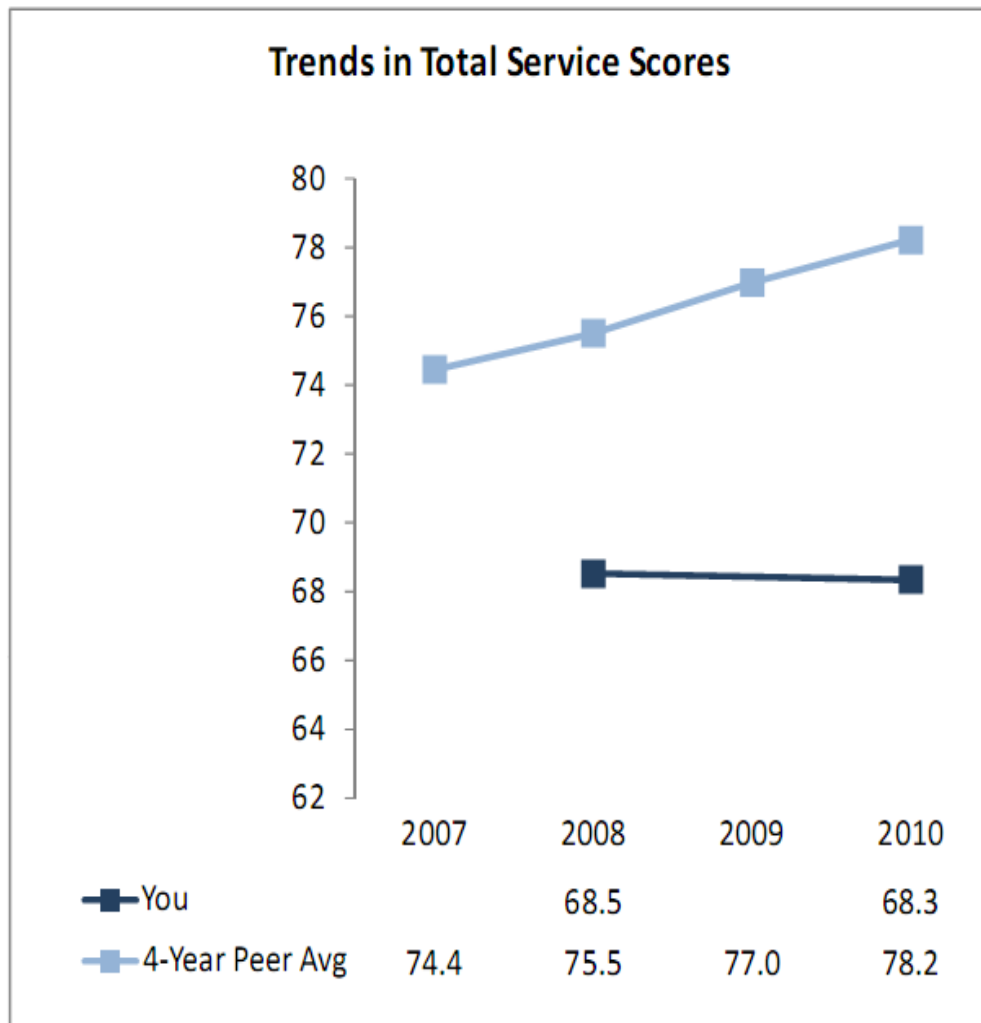


## Reasons Why Total Cost Average is \$12 Below Peer Average

Reason	Impact
1. Economies of scale advantage	-\$0.47
2. Lower transactions per member (workloads)	-\$0.38
3. Higher transactions per FTE (productivity)	-\$11.69
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$11.81
5. Lower third-party and other costs in front-office activities	-\$7.27
6. Paying more/-less for back-office activities:	
- Governance and Financial Control	-\$0.82
- Major Projects	-\$5.63
- IT Strategy, Database, Applications	\$15.26
- Actuarial, Legal, Audit, Other Support Services	\$19.51
7. Adjustment re: December-year-end peers	-\$8.23
<b>Total</b>	<b>-\$11.53</b>

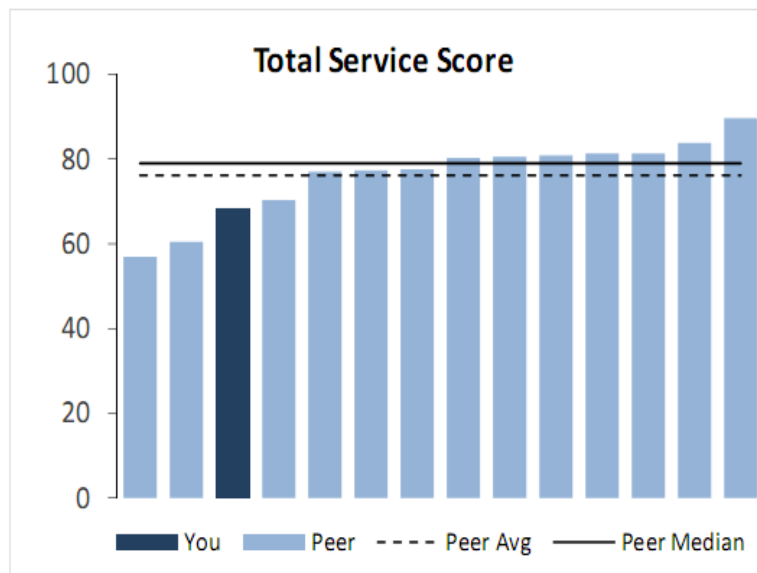
## Cost Trends

*The total service score has remained relatively unchanged between 2008 and 2010. During the same period, the peer average increased by 1.8% per annum.*



- **Member website:** The service score decreased between 2008 and 2010 because: 1) fewer online tools, from 3 to 1, and 2) higher percentage of web “down-time”, from 0% to 2%.
- **Member statements:** The service score increased between 2008 and 2010 as a result of fewer member complaints in statement accuracy, from 3% to 1%.
- **Member newsletters:** The service score increased between 2008 and 2010 because of more frequent newsletters to active and annuitant members, from 3 to 4 times per annum.

## Key Takeaways



**Total service score was 68 out of 100. The peer median was 79.**

- The total service score has remained relatively unchanged between 2008 and 2010. During the same period, the peer average increased by 1.8% per annum.
- Service scores in all activities have been consistent, with the exception of three: member website service score decreased while your member statement and newsletter service scores increased.

**Total pension administration cost was \$89 per active member and annuitant. This was \$12 below the peer average of \$101. The primary reasons were:**

- Lower salaries and benefits, building & utilities, HR & IT helpdesk costs per FTE
- Higher productivity per FTE
- Lower third-party and other costs in front-office activities

**Costs increased by 30% per annum between 2008 and 2010, compared to a peer average increase of 10% per annum. Litigation and legal expenses have increased, and to a lesser degree, IT costs.**

